3/9/2018

INITIAL REVIEW EXPOSURE REPORT (IREXR)

Chemical ID: P-18-0118C Reviewer: EvaWong/HDJ

Consolidated Cases: P-18-0118 & P-18-0119

Results Table: Dose, Concentration, and Days Exceeded Results Summary

Exposure Scenario ¹		Water					Landfill	Stacl	k Air	Fugiti	ve Air
Release activity(ies) ² ; exposure calculation(s) ³	Drinkin	g Water	Fish In	gestion	7Q10 ⁴ CC =	PDM Days Exceeded	LADD	ADR (24-hr	LADD (Annual	ADR (24-hr	LADD (Annual conc.)
	ADR	LADD	ADR	LADD			LADD	conc.)	conc.)	conc.)	
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day	μg/l	# Days	mg/kg/day	mg/kg/day (μg/m³)	mg/kg/day (μg/m³)	mg/kg/day (μg/m³)	mg/kg/day (μg/m³)
USE: Max ADR	2.09E-04									-	
USE: Max LADD		2.60E-06									

¹ Exposure scenario titles consist of release activity followed by exposure calculation abbreviation.

Remarks:

USE - POTWs All

² Release activities are from engineering report's Manufacturing (Mfg), Processing (Proc) and Use release activity labels.

Multiple release activities are combined in one exposure scenario if their releases occur at same location.

³ Exposure calculations are Acute Dose Rate (ADR), Lifetime Average Daily Dose (LADD), and Probabilistic Dilution Model (PDM). There may be one, two, or all three exposure calculations per exposure scenario. CC is the aquatic concentration of concern.

⁴ This column displays concentration values for the 7Q10 streamflow, which is defined as the average daily streamflow of the seven consecutive days of lowest flow within a ten year period.

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INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0118 Assessor: EvaWong/HDJ

ENVIRONMENTAL RELEASES

Scenario#:1 Number of Release Sites: 25.

Release Activity: USE: Max ADR

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
		Non-sludge/Sludge		
Total Releases:	315.65	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr: Per Site Release:

118.00	0.00/0.00	N/A	N/A
0.11	N/A/0.00	N/A	N/A
(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

(kg/site/day)

Remarks:

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INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0118

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1 Number of Sites: 25 RELEASE ACTIVITY:USE: Max

ADR

SIC-CODE DESCRIPTION: POTW's (All facilities)

SIC-CODE (S): 4952 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
90.00	118.	0.107	1.07E-02	0.00	0.00

	AQUATIC EXPOSURE ESTIMATES - SURFACE WATER										
PLANT TYPE	% ILE FACILITY		STREAM FLOW (MLD)				STREAM CONC. (μg/l)				
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10		
ALL	50	125.56	44.02	26.80	22.53	8.52E-02	0.24	0.40	0.47		
ALL	10	11.11	1.94	1.06	0.96	0.96	5.52	10.09	11.15		

DRIN	DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES									
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units				
	50%	10%		50%	10%					
	Cancer									
$LADD_{pot}$	1.52E-07	1.71E-06	mg/kg/day	0.00	0.00	mg/kg/day				
LADC _{pot}	1.17E-05	1.32E-04	mg/L	0.00	0.00	mg/kg				
Acute										
ADR_{pot}	9.21E-06	2.09E-04	mg/kg/day	0.00	0.00	mg/kg/day				

SIC Code Comments:

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INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0118 Assessor: EvaWong/HDJ

ENVIRONMENTAL RELEASES

Scenario#:2 Number of Release Sites: 25.

Release Activity: USE: Max LADD

Release Description:	WATER	LANDFILL	STACK	FUGITIVE
		Non-sludge/Sludge		
Total Releases:	478.95	N/A	N/A	N/A
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr: Per Site Release:

1.00	0.00/0.00	N/A	N/A	
19.16	N/A/0.00	N/A	N/A	
(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)	

Remarks:

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INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0118

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2 Number of Sites: 25 RELEASE ACTIVITY:USE: Max

LADD

SIC-CODE DESCRIPTION: POTW's (All facilities)

SIC-CODE (S): 4952 EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
90.00	1.	19.15	1.92	0.00	0.00

	AQUATIC EXPOSURE ESTIMATES - SURFACE WATER										
PLANT TYPE	% ILE FACILITY		STREAM FLOW (MLD)				STREAM CONC. (μg/l)				
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10		
ALL	50	125.56	44.02	26.80	22.53	N/A	N/A	N/A	N/A		
ALL	10	11.11	1.94	1.06	0.96	N/A	N/A	N/A	N/A		

DRIN	DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES									
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units				
	50%	10%		50%	10%					
	Cancer									
$LADD_{pot}$	2.30E-07	2.60E-06	mg/kg/day	0.00	0.00	mg/kg/day				
LADC _{pot}	1.77E-05	2.00E-04	mg/L	0.00	0.00	mg/kg				
Acute										
ADR_{pot}	N/A	N/A	mg/kg/day	N/A	N/A	mg/kg/day				

SIC Code Comments: